

LOCATIONS AND ACCOMMODATIONS

Hotel Reservations must be made 4 weeks prior to the seminar. Rates apply only the day before and the last day of the seminar.

PORLAND, ME OCTOBER 28-30, 2009

The Eastland Park
157 High Street
Portland, ME 04101
207-775-5411
ASCE Hotel Rate: \$109 Single/Double

MEMPHIS, TN FEBRUARY 17-19, 2010

Crowne Plaza Memphis
300 North Second Street
Memphis, TN 38105
901-525-1800
ASCE Hotel Rate: \$109 Single/Double

Send a Team and Save 10%

Register three or more from one organization for the same seminar/date/location and **save 10%** on each seminar registration. Registrations must be made at the same time to receive this discount. Discount registrations cannot be done online. They must be faxed to 703-295-6144.

ONLINE COURSES

ASCE offers online courses on a variety of technical and management topics, as well as courses on DVD and CD. For a complete listing of these courses or to register, please go to <http://store.asce.org/view>. ASCE members receive discounts of 15% or more on most online courses. Volume discounts available.

CEUS/PDHS

ASCE has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. In addition, ASCE follows NCEES guidelines on continuing professional competency. Since continuing education requirements for P.E. license renewal vary from state to state, ASCE strongly recommends that individuals regularly check with their state registration board(s) on their specific continuing education requirements that affect P.E. licensure and the ability to renew licensure. For details on your state's requirements, please go to: http://www.ncees.org/licensure/licensing_boards/.

SEMINARS

Confirmation Letter and Time/Location: All seminar registrations will be confirmed by email within one week of receiving your registration. Seminar time, location and hotel information will be included with your confirmation letter. Seminar fees include all course materials. Fees do not include hotel accommodations or meals. Hotel reservations should be made early as discounted rates are subject to cut-off dates.

Instructor Substitution: ASCE reserves the right to substitute an equally-qualified instructor for any seminar should unforeseen circumstances arise.

Cancellations: Cancellations must be made in writing via email or fax and must include registrant's name, confirmation # and name/date of the seminar. If you cancel 7 business days or less prior to the seminar start date, no refund/credit/personal transfers will be issued. You may transfer your registration to another registrant with no penalty up until the day of the seminar.* No credits/ refunds/personal transfers will be issued for no shows. If ASCE must cancel a seminar due to insufficient enrollment, your registration fee will be refunded in full. ASCE is not responsible for non-refundable expenses such as airfare, hotels, transfer fees, or any other expenses associated with a cancellation.

*Price differential will be charged if a non-member is replacing a member. Transfer may only be used one time, no multiple transfers allowed.

CEUs/Certificates: One (1.0) CEU equals ten contact hours of instruction. A CEU certificate will be issued to each person who successfully completes a seminar and a permanent record will remain on file with ASCE. One (1.0) Continuing Education Unit (CEU) = Ten (10) Professional Development Hours.

Send a Team and Save: Register three or more from one organization for the same seminar/date/location and save 10% on each seminar registration. Registrations must be made at the same time to receive this discount.

On-Site Registration: Registration is available on-site at the seminar; however, we cannot guarantee that course materials will be available that day. Course notes and other materials will be mailed to you approximately four weeks after the seminar. Please be sure to contact ASCE no later than the day before the seminar to confirm that the seminar will be held as planned.

Dress: Casual business attire is appropriate for all seminars.

Discounted Airfares: Use American Airlines and save money on airfares when traveling to ASCE Seminars. Call American Airlines at 1-800-433-1790 and refer to ID number A1319SS, 7 days a week from 7:00 AM to 12:00 midnight Eastern Time. If you wish to use a travel agency, you must tell your agent to book your reservation under the above ID number to receive your discount.

Rental Cars: Special rates are available with Enterprise Rent-A-Car. Visit www.enterprise.com or call 1-800-736-8222 to make a reservation. Please use Code 16VCS73 and Password ASC to obtain your discounted rates.

Membership: Go to www.asce.org to join ASCE and save on future continuing education opportunities. Enter 09CEFCAT in the promotion code section of the membership application.

DISTANCE LEARNING COURSES

Return Policy: If you are not completely satisfied with your product purchase, return it undamaged within 14 days for an exchange or credit to your ASCE account. If your return is not due to our error, we will deduct the shipping costs from your credit. Returns are accepted at the warehouse only. Please refer to your packing list or call ASCE for the address.

CEUs/Exams: CEUs will only be granted to the person who originally ordered the product. Additional exams are available for some courses for a fee of \$50 each. Exams must be taken within one year of receipt of course. A passing score of 70% or higher is required to receive CEUs. Exams may be retaken up to three times without additional charge.

Fulfillment/Shipping: Orders are processed within 24 hours of receipt. All products are sent via UPS Ground unless otherwise requested.

Online Courses: Log-in and Password information is sent to the email address provided with the order within 24 hours of receipt. All online courses expire one year after receipt of log-in and password. All materials will be accessed online. No course material will be shipped.



1801 Alexander Bell Drive
Reston, Virginia 20191-4400

Dam Breach Analysis Using the Hydrologic Engineering Center's River Analysis System HEC-RAS

For faster and immediate registration register online! Go to: www.asce.org/conted/seminars

ASCE Individual Member

(ASCE membership numbers are NOT TRANSFERABLE within any given company)

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Locations Please check one

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Memphis, TN/Febr. 17-19, 2010 70142010

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Email: seminars@asce.org

Mail-FAX entire back panel with registration info

Continuing Education
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ADVANCED COURSE >>>

DAM BREACH ANALYSIS USING THE HYDROLOGIC ENGINEERING CENTER'S RIVER ANALYSIS SYSTEM HEC-RAS

PARTICIPANTS SHOULD HAVE SOUND EXPERIENCE IN HEC-RAS STEADY FLOW COMPUTER MODELING AND SOME EXPERIENCE IN HEC-RAS UNSTEADY FLOW COMPUTER MODELING.

Portland, ME / October 28-30, 2009

Memphis, TN / February 17-19, 2010

"Excellent coverage of topics and technical materials that will help any engineer on a related project."

- Nadia Dahab, Kimley-Horn and Associates, Inc., Dallas, TX

"The seminar provided me with excellent training to handle more complex dam breach projects."

- Mike Ward, Dappolonia Engineering, Monroeville, PA

"This is a good course for more advanced HEC-RAS users. There is plenty of time to work through example problems."

- Christopher Weeks, Velvin & Weeks Consulting Engineers, Athens, TX

"Great instructors. Relevant course material."

- Chris Cooley, HTE Northeast, Inc., Bedford, NH



This is an ASCE Continuing Education Course
NOT JUNK MAIL. If you don't need CEU's
please pass this on to someone who does.

2.4
CEUs

DAM BREACH ANALYSIS USING THE HYDROLOGIC ENGINEERING CENTER'S RIVER ANALYSIS SYSTEM HEC-RAS

PURPOSE AND BACKGROUND

This intensive, workshop-oriented, three-day seminar will prepare the engineer and water resource professional to use the HEC-RAS computer program for running dam breach simulations. Led by experts from WEST Consultants with practical experience in dam breach modeling, participants will learn how to approach and conduct a dam breach problem, estimate breaching parameters, construct an HEC-RAS unsteady flow model of the dam breach, and eliminate errors and instabilities in the model run.

The HEC-RAS modeling system was developed as part of the Hydrologic Engineering Center's "Next Generation" software and replaces several existing Corps of Engineers programs, including the HEC-2 water surface profile program. HEC-RAS incorporates various aspects of hydraulic modeling, including water surface profile computations and bridge hydraulics.

Includes advances in open channel hydraulic analysis such as:

- Dam and Levee Breach Analysis including multiple dam and/or levee breaching
- Availability of all widely used methods for bridge and culvert hydraulic analysis, which can be used in conjunction with dam breaching
- Ability to perform steady and unsteady mixed flow regime computations
- Many other capabilities developed from years of experience with HEC-2 and other major hydraulic analysis computer programs

HEC-RAS is user friendly, computationally efficient, and runs within, and fully supports, the Microsoft Windows environment. It uses the latest graphical user interface (GUI) technology for data entry, graphics, and display of program results. Complete context-sensitive help screens are available for every program feature and option. Software includes the following functions: file management, data entry and editing, hydraulic analyses, tabulation and graphical displays of input and output data, reporting facilities, and on-line help.

HEC-RAS is one of the most extensively-tested civil engineering computer programs ever developed. In addition to extensive in-house testing at the Hydrologic Engineering Center and at other Corps of Engineers' offices, the program has been through two full "beta" releases, during which the program was tested by thousands of engineers in the private and public sectors.

SEMINAR FEATURES

Workshop participants receive the following publications and software:

- HEC-RAS software (latest version)
- HEC-RAS Hydraulic Reference Manual (on CD)
- HEC-RAS User's Manual (on CD)
- HEC-RAS Course Notes
- HEC-RAS Applications Manual (on CD)

SEMINAR BENEFITS AND LEARNING OUTCOMES

- Learn how to use the U.S. Army Corps of Engineers' HEC-RAS (River Analysis System) computer program to conduct dam breach analyses
- Gain hands-on HEC-RAS experience by participating in practical computer workshops
- Get an overview of hydraulic principles for rivers, waterway bridges, and culverts and how they work within a dam breach model
- Understand breaching parameters and how to choose them
- Obtain valuable insights in methods for minimizing computation errors and instabilities commonly associated with unsteady hydraulic models

SAVE 10% Send three or more from the same organization for the same seminar and Save 10% on each enrollment

ASSESSMENT OF LEARNING OUTCOMES

Students' achievement of the learning outcomes will be assessed through 5 computer workshops. Each workshop will address issues discussed in the lectures and will test the students' understanding of the HEC-RAS software and specifically how to use it to construct, diagnose, and repair (if necessary) a dam breach model.

WHO SHOULD ATTEND?

Consulting engineers, water resource planners, engineers employed by local, state, or federal government agencies who are currently, or at some point plan to execute and/or review dam breach hydraulic studies. Participants should have sound experience in HEC-RAS steady flow computer modeling and some experience in HEC-RAS unsteady flow computer modeling. They should also be able to follow simple computer instructions.

SEMINAR INSTRUCTORS

*The seminar will be taught by one of the following qualified instructors:

CHRISTOPHER R. GOODELL*, P.E., D.WRE, M.ASCE, is a senior hydraulic engineer with WEST Consultants with over 13 years of experience in computational hydraulics, river hydraulics and hydraulic design. He spent two years at the Hydrologic Engineering Center (HEC) actively working on the development of HEC-RAS. In addition, Mr. Goodell is a contributing author to the HEC-RAS manuals and has applied HEC-RAS to a wide range of complex problems, including dam breaks, bridge and culvert hydraulics, spillway and outlet works design, stable channel design, and floodplain mapping. He also has experience in moveable bed hydraulics and has contributed to the incorporation of sediment transport and sediment impact modeling into HEC-RAS. Mr. Goodell earned his B.S. degree in civil engineering at Oregon State University and his M.Eng. in Hydraulic Engineering from the International Institute for Hydraulic Engineering (IHE) in Delft, The Netherlands. Mr. Goodell has taught HEC-RAS courses and provided technical support for HEC-RAS since 2000.

MARTIN J. TEAL*, P.E., P.H., D.WRE, M.ASCE, has worked with hydraulic models for more than 20 years and is currently a Vice President with WEST Consultants. His experience includes working as a hydraulic engineer for the U.S. Army Corps of Engineers and as a civil engineer for a large multinational firm in Chile. As a private consultant with WEST, he has dealt with complex hydraulic, hydrologic, and sedimentation problems. He has used computational models, such as HEC-RAS and HEC-6, as a principal tool to deal with these problems for clients in both the public and private sectors throughout the United States and internationally. His sedimentation modeling experience includes reservoir sedimentation studies of main stem dams on the Missouri River, investigation of effects of in-stream sand and gravel mining, and other studies for rivers and washes from coast to coast. Mr. Teal earned his BS in Civil Engineering from the University of California, Berkeley, and his MS in Civil and Environmental Engineering (Hydraulics) from the University of Iowa. He has taught HEC-RAS courses since 1997 throughout the U.S. and Latin America.

RAYMOND WALTON*, P.H.D., P.E., D.WRE, M.ASCE, has nearly 30 years of experience directing water resources projects for a variety of federal, state, local government and private clients. He is a nationally-recognized expert in water resources and computer modeling, including surface water, groundwater and water quality systems. He is currently a Vice President with WEST Consultants. Dr. Walton started with the Rivers Division of Hydraulic Research Station in the U.K., developing and applying hydraulic flood routing models. He taught hydraulics, hydrology, water resources, and mechanics at N.C. State University. He then worked for more than 15 years for two large firms on the east coast and in Washington state, where he managed numerous water resources engineering and modeling studies. He has applied models to numerous rivers, estuaries and coastal areas to simulate flooding, circulation, and water quality, and he has applied HEC-RAS to more than 100 river systems throughout the United States. He received his B.Sc. in Mathematics from University College, London, his M.Sc. in Engineering Hydrology from the University of Newcastle-Upon-Tyne, and his Ph.D. in Hydraulics from the University of Florida.

NOTE: In the event that one of the listed instructors is unavailable to teach, a qualified instructor from WEST Consultants will be appointed to replace him. Questions? Please call ASCE Continuing Education at 1-800-548-2723.

Summary Outline

TIME: 8:00am – 5:00pm

Day One

- Intro to Dam Breach Modeling
- HEC-RAS Review
- Computer Workshop on Unsteady Flow Modeling
- HEC-RAS vs. HEC-HMS Dam Breach Modeling
- Setting up an HEC-RAS Dam Breach Model
- Computer Workshop on Adding an Inline Weir and Breach

Day Two

- Diagnosing Problems with a Dam Breach Model
- Computer Workshop on Diagnosing a Dam Breach Model
- Fixing an HEC-RAS Dam Breach Model
- Computer Workshop on Fixing an HEC-RAS Dam Breach Model
- Breach Parameters

Day Three

- Calibration of Dam Breach Models
- Computer Workshop on Breach Parameters
- Case Studies/Student Projects

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- Scheduled at your convenience
- Tailored to the needs of your staff

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